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A qualitative study of Advanced Nurse Practitioners' use of physical assessment skills in the community: shifting skills across professional boundaries

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Abstract

Key words: physical assessment skills, community nurses, boundary working, diagnostic skills, advanced practice

Aim. To explore multiple perspectives on the use of physical assessment skills by Advanced Nurse Practitioners in the UK

Background. Physical assessment skills practices are embedded in advanced nursing practice roles in the UK. There is little evidence on how these skills are used by Advanced Nurse Practitioners' on the community.

Design. Case study

Methodology and methods. A qualitative interpretative single-embedded case study of 22 participants from South of England. A framework method analysed interview data collected by the researcher between March and August 2013. Participants included nurses, doctors, nurse educators and managers

Findings. Physical assessment skills education at Universities are part of a policy shift to develop a flexible workforce in the UK. Shared physical assessment practices are less to do with role substitution and more about preparing practitioners with skills that are fit for purpose. Competence capability and performance with physical assessment skills are an expectation of advanced nursing practice.

Conclusions: These skills are used successfully by community Advanced Nurse Practitioners to deliver a wide range of services in response to changing patient need. The introduction of physical assessment skills education to undergraduate professional preparation would create a firm foundation to develop these skills in post-graduate education.

Relevance to clinical practice.

- Physical assessment education prepares nurses with the clinical competencies to carry out healthcare reforms in the UK
- Shared sets of clinical assessment competencies between disciplines have better outcomes for patients
- Levels of assessment competence can depend on the professional attributes of individual practitioners
- Unsupportive learning cultures can hinder professional development of advanced nursing practice

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What does this paper contribute to the wider global community?

- This paper adds to the limited body of knowledge as to how two professions view physical assessment skills development for advanced nursing practice.
- Shared physical assessment practices between disciplines have better outcomes for patients.
- Standardised physical assessment education for advanced practice is required for transformational service change in the UK

Introduction

This paper demonstrates the value of physical assessment skills (PAS) training and education for advanced nursing practice in a community setting. Advanced Nurse Practitioners (ANPs) use these skills to support General Practitioners (GPs) and share their workload. There is limited evidence as to how this is achieved, and if the use of these skills benefits patients and the health service.

Definition of physical assessment- nurses and doctors

Physical assessment is a framed consultation and physical examination by a practitioner, to gather data for a medical diagnosis which informs decisions about a patient's treatment (Baid 2009). Medical physical assessment education and training were introduced to registered nurses' (RNs) roles in the UK in 1990s. Prior to this, physical assessment practices were conceptualised within the framework of the nursing process (Nursing and Midwifery Council (NMC) 2002). Nurses' physical assessment of patients in hospitals was linked to the appraisal of basic vital signs and oxygen saturation assessments via pulse oximetry (Wheeldon 2005, Rushforth *et al.* 2006, West 2006) to support and manage medical interventions (Carpenito-Moyet 2006). The literature questions the value of vital signs assessment alone in recognising levels of patients' acuity to escalate appropriate and timely referrals (Wheeldon 2005). Zambas (2010) argues that inclusion of physical assessment in nursing practice plays a significant role in monitoring deterioration in patients compared to vital signs assessment data, and alert nurses to patients' potential to deteriorate, when combined with holistic practices of observing subtle changes in behaviour over time. She argues that nurses' physical assessment of patients is much more individualised and unsystematic, but knowing and listening to patients and their families is more important than the nurse focussing on assessment skills to diagnose disease for the purpose of determining treatment interventions (Zambas 2010). She also argues that the physical assessment framework can be used in holistic as opposed to diagnostic ways. To

achieve this the practitioner is required to place the patient at the centre of the consultation, whilst using the senses such as active touch, listening, looking and reflecting on the patients story, to achieve a therapeutic relationship (Zambas 2010). In using the physical assessment framework, more time is spent systematically examining a patient's physical state in comparison to vital signs assessment (Wheeldon 2005).

Despite lack of evidence about the efficacy of PAS, and its purpose for nursing work, PAS was introduced to RNs' scope of practice in the UK in the late 1990s. RNs were trained to undertake physical assessment skills based on a medical examination framework to appraise patients' signs and symptoms (West 2006, Rushforth *et al.* 2006) and where possible make diagnoses in the absence of a medical doctor (Baid 2009).

Background

Physical assessment education and training is an important component of nursing professional preparation in United States of America (USA), Canada, Australia (Lisa & Dixon 2007), Japan (Shinozaki & Yamauchi 2009) and New Zealand (Zambas 2010). Most of the American literature justifies the inclusion of PAS education to develop graduate nurses' competence for ward nursing practice (Lesa & Dixon 2007). Concerns have been expressed about the range and depth of PAS taught, in that they were beyond the scope of practice for ward nurses' (Fennessy & Wittmann-Price 2011, Anderson *et al.* 2014).

International studies (Seacrest *et al.* 2005, Giddens 2007, Birks *et al.* 2012) have found that ward nurses only use one third to one fourth of PAS taught in undergraduate professional preparation programmes. In addition, ward nurses' use of the framework of inspection, palpation, percussion and auscultation (IPPA), was limited to observation and inspection of patients' symptoms, mostly of the respiratory and cardiovascular systems (Seacrest *et al.* 2005, Giddens 2007, Birks *et al.* 2012). Recommendations were that graduate nurses should be taught fewer PAS, and concentrate on developing competence and clinical

judgement skills, under direct supervision of mentors whilst working with patients in hospital wards (Giddens 2007).

These studies usefully evaluate teaching of PAS in undergraduate professional preparation programmes rather than PAS education for post-graduate professional preparation (Kelley & Kopac 2007). History taking and systems based PAS are regarded as essential competencies for advanced nursing practice professional preparation. Without this foundational knowledge, physical assessment education lacks depth and comprehensiveness for registered nurses (RNs) to make clinical diagnoses (Kelley & Kopac 2007; National Organisation of Nurse Practitioner Faculties 1998).

Modernisation Agenda - UK perspective

Prior to the introduction of PAS training to RNs roles in the UK, little was known about the benefits of nursing assessment practices in healthcare. PAS education and training in post-graduate nurse education was influenced by the UK government's reforms to modernise National Health Service (NHS) systems (DH2000a). Changing patterns of services delivery focussed on strategic organisational outcomes related to reducing length of patients' stay in hospitals (DH2000b), and delivering care closer to home for elderly people living with long-term conditions (LTCs) (DH2005a, DH 2008c). Such initiatives required professions allied to medicine to advance traditional roles to work flexibly and proactively (NMC 2007, DH 2010) to share doctors' workloads. Experienced nurses with higher levels of clinical authority and leaderships skills in the community, were seen as one means to improve the healthcare provision of designated patients groups, particularly those with LTCs (DH 2006, DH2008c). To comply with the modernisation agenda, experienced community nurses expanded their roles by taking on physical assessment and diagnostics, prescriptive authority and providing evidenced based management plans (RCN 2008).

Review of literature

Studies evaluating the use of PAS for RNs roles in the UK focussed on pre-operative assessment initiatives and nurse-led outreach services (ORS) in hospitals. For example, Kinley *et al.* (2001) demonstrated in a non-equivalence study of adult patients (n=1874) no differences in cancellations, costs or complications in patients assessed by PAS trained nurses or doctors, in a pre-operative assessment unit. Analysis of patients' satisfaction from interview data (n=42) and a focus group (n=6) showed nurses' ability to communicate health information more readily than doctors.

Coombes & Moorse (2002) reported on the added value of PAS training for outreach nurses (ORN) on hospital wards to determine treatment priorities for deteriorating patients in the absence of doctors. Similarly, a study by Aldridge-Bent (2010) for district nurses in the community, showed the value of PAS training for ongoing monitoring and prioritising patients' treatments in the absence of GPs.

There is no empirical evidence about the use of PAS in community nurses' practice in the UK: Therefore the purpose of this study was to explore and capture multiple perspective of Advanced Nurse Practitioners (ANPs) use of PAS in the community.

Methodology and methods

An Interpretative constructivist qualitative methodology was utilised to provide in-depth accounts of purposively sampled (n=22) participants views of PAS use for ANPs in the community. This approach was utilised because the researcher (as part of her taught doctorate award) was interested in understanding different interpretations amongst participants, and the co-construction of their meaning through the process of interaction (Guba & Lincoln 2005). This paper reports on three focus groups and eight semi-structured interviews conducted by the researcher with specialist ANPs (community matrons, district nurses), generalist ANPs (nurse practitioners), nurse managers, nurse educators, and GPs.

Design

Using case study as a strategy of enquiry, (n=22) people were recruited who were directly/indirectly involved in the use of PAS in the community. A single embedded case study design underpinned this study because it recognised the significance of context (Yin 2009), and allowed the different sub-units embedded within the case to be examined. The case boundary was the community, and the unit of analysis (Yin 2009) was PAS. The subunits of analysis were ANP roles, and use of PAS within a community boundary setting. Within this case boundary, specific outcomes were for ANPs to increase their scope of practice to support GPs workloads in part of England. This area has a population of 1.6 million, distributed over the three local authority areas, with over 25% of the population over 65 years. Frail and elderly population groups account for the majority of healthcare expenditure (Greenland Strategic Health Plan 2014-2019). Patients experience acute and chronic physical, mental and social health issues, but mostly multiple chronic diseases. Therefore, community care services are the first point of contact for most people in this area of England (Greenland Strategic Health Plan 2014-2019)

Participants and demographics

To maximise variability from the case study in terms of geographical location and demographics, (n=22) participants who were employed across the South of England were purposively selected. ANPs were recruited at a University if they had undertaken comprehensive physical assessment skills education of all body systems across the life span, and were and were using these skills in the direct provision of care (RCN 2012). Participants were invited to participate by email.

All ANPs recruited (n=14) had a broad base foundational knowledge and experiences of 10-25 years in the community. ANPs employed in GP surgeries (n=7) worked in a generalist capacity to complete episodes of care for patients of any age, and with a variety of presenting health problems. This encompassed the provision of care for patients with

urgent/acute episodes related to minor ailment or injuries, or for patients who visited GP surgeries with LTCs. ANPs who led health promotion clinics related to diabetes care, sexual health or public health needs, were also recruited. Clinical nurse managers (n=3) worked previously as ANPs, but now managed community nursing teams.

Specialist ANPs, community matrons and district nurses (n=5) were recruited because they worked with defined patient groups with LTCs. They planned and delivered a large proportion of the care themselves, in partnership with medical colleagues and health and social care teams (RCN 2012). Three full time nurse lecturers (n=3) and 1 lecturer practitioner (LP) were recruited because they were responsible for PAS education at a University. The researcher was interested to explore educators' views on how ANPs used PAS in the practice context, and if PAS education was fit for purpose. Three GPs (two trainee, and one GP of ten years) supervised ANPs in practice. Participants were excluded if they had not undertaken PAS education at a University, and were not two years post registration qualification. Participants were also excluded if they were not directly/indirectly involved with PAS use in the community.

Data collection

Data collection took place between March and August 2013. Three focus groups and eight semi-structured interviews were conducted by the researcher. The focus group (FG) and face to face interviews were held in mutually agreed locations at the University and in practice environments. Semi-structured interviews lasted up to 45 minutes and FG interviews up to 90 minutes. All participants gave permission for interviews to be audio-recorded and transcribed. Interviews were conducted by the main researcher. Interview schedules were informed by three themes identified from a preceding review of previous studies (Fennessy & Wittmann-Price 2011 Lesa & Dixon 2007). These themes included, the purpose and usability of PAS in primary care, educational approaches and competence development.

Ethics

Favourable ethical opinion was given by the University where the main researcher was studying, and the University where ANP participants were recruited. Interviews were agreed, and prior to the interview participants had the opportunity to ask questions and were made aware they could voluntarily withdraw at any time. Pseudonyms were given to the participants to maintain confidentiality and anonymity. Interviews were digitally recorded and personally transcribed by the researcher for analysis.

Data analysis

Data were analysed using framework analysis method (Ritchie *et al.* 2003). This method provided the researcher with clear steps in how to structure summarised data, using five iterative phases: familiarisation, indexing, charting, mapping and interpretation (Ritchie & Spencer 1994; Gale *et al.* 2013; Ritchie *et al.* 2003 & Ward *et al.* 2013). Using these five steps, the researcher identified cluster codes to summarise and reduce the data to produce a coding framework. The coding framework, which is the defining feature of framework analysis (Gale *et al.* 2013), provided a matrix structure to systematically summarise and organise interview data within cluster codes. Themes were developed by interrogating the summarised data within the cluster codes, and by comparing the categorised data across interviews. Comparing and contrasting data is a vital component of qualitative analysis (Gale *et al.* 2013).

Design

This single embedded case study design was underpinned by Guba's (1985) four step criteria to assess for trustworthiness, credibility, applicability, consistency and reflexivity. The findings emerged from interviews with a range of practising health professionals involved with PAS in community care. In-depth interview data (Yin 2009) provided context to ANPs practice of PAS. The findings were discussed by participants and supervisors (Silverman

1998), and a reflexive diary was used throughout. These processes helped the researcher position the study's epistemological and ontological foundations, and challenge the researcher's subjective personal beliefs and values (Asselin 2003). An audit trail was maintained during the data collection (Ritchie et al. 2003) to enhance dependability.

Findings- Introduction

The analysis resulted in three main themes relating to the use of PAS for ANPs in the community; i) policy perspectives, ii) the practice context and iii) education. The three main themes and associated sub-themes presented in Table 1, relating to the use of PAS for ANPs in the community, were distinct but integrated. The themes identified several driving factors related to policy, practice and education that led to the introduction of PAS for ANP roles in the community. They identified the 'added value' of PAS education for professional role development, to meet the demands of the changing contextual features of community care work. However, several organisational and strategic initiatives were identified as barriers to the integration of PAS education to ANPs roles in the community. These findings will now be further discussed in the three themes presented. Each theme will be introduced, followed by quotations and codes that refer to participants, to illustrate main points

Table1.

Theme 1	Theme 2	Theme 3
Policy Perspectives	The practice context	Education
	Sub-themes	
<ul style="list-style-type: none"> <i>The benefits of PAS for ANP in the community</i> 	<ul style="list-style-type: none"> <i>Negotiating boundaries</i> 	<ul style="list-style-type: none"> <i>Barriers to PAS use in practice</i>
	<ul style="list-style-type: none"> Time constraints 	

Policy perspectives

The benefits of PAS for ANPs in the community

This theme identifies some of the benefits of policy reforms in modernising community services, and new ways of working in the community (DH 2004; DH2005a; DH2008c & DH 2012s). Participants believed that community nurses who were undertaking ANP education were ideally placed to support medical teams, who had no capacity to provide direct patient care for defined patient groups in the community (DH2010).

The findings also suggest that shifting care from hospital to the community has produced conditions which support role shifts between ANPs and GPs. Participants believed that PAS education was necessary for ANPs to adapt to these role shifts in the community. A GP's interview reported that patients have better outcomes when community care teams work in integrated ways, and respected each other's professional boundaries

"There's the realisation that actually the best care is given to patients when everybody gives respect to what everyone else is doing and the different skills and roles and everyone needs to contribute"(General Practitioner Individual Interview 4.)

Participants' views were that ANPs trained in higher levels of assessment knowledge and skills could support GPs to manage the burden of chronic disease in the community. As reported by a GP and a nurse manager, this could be achieved by ANPs using these skills to support GPs workloads, particularly for patients with LTCs, so that care is more co-ordinated

'The real steep increase in burden of our patients, the increase in chronic disease, we are going to have to be sensible about this. We need more doctors and nurses doing PAS' (General Practitioner Individual interview1.)

'To try and reduce the fragmentation in care' (Nurse Manager Individual interview 3.)

In addition, ANPs could use these skills to stratify 'at risk' patients level of re-admission to hospital. This way of working could perhaps deliver a more efficient and effective service by

preventing unwarranted hospital admissions. As reported in a GPs interview, proactive use of these skills by ANPs would potentially reduce admissions from his practice

“The community matron, sees a lot of patients who keep bouncing in and out of hospitals and tries to prevent that. Her early identification with these patients relies heavily on physical assessment skills” (General Practitioner Individual Interview 4.)

In comparison, a strong feature of the data was how specialist ANPs used these skills to maintain patient safety and provide person-centred care. They reported that data gained from the physical assessment enabled them to judge progression of patients’ illness symptoms, and seek appropriate professional help when required

“To do a neurological assessment, for degenerative conditions to monitor the condition as it can be variable, or is it another condition that’s likely to come back to that level, and that’s the undifferentiated bit” (Community Matron Focus Group 3. Participant 3)

“Skin assessments if somebody’s got cellulitis, being able to sort of diagnose cellulitis and ask the GP for antibiotics” (District Nurse Focus Group 4. Participant 5)

This was achieved by engaging with the patient on a personal level to know and understand the biography of their illness experience. The reciprocal value of being able to combine holistic nursing skills with personal and case knowledge of the patient, throughout the physical examination consultation, appeared to enhance the nurse-patient relationship in this case study

“Buys more patient time for physical care and ...work closely to look, listen, attend and talk when interacting with a patient, to understand their problem. (Specialist Nurse Practitioner). Individual Interview.3)

In addition, the blending of fundamental nursing skills with the biomedical knowledge of physical assessment practices, enabled ANPs to understand the complexity of patients’ illness symptoms, and take into account patients beliefs and values. The benefit of using the skills in such ways was that care was more personalised, especially for patients with LTCs.

ANPs views were that this way of working was necessary to encourage this patient group to self-care, so that they could make a difference to their quality of life

“ I think patient’s understanding of actually what’s wrong with them and what’s occurring, gives them that confidence to help themselves...to talk them through that and to reiterate it on a regular basis until they’ve really grasped it and they know they can make a difference themselves” (Community Matron Focus Group 3. Participant 1.)

In comparison, ANPs employed in GP surgeries used these skills to work in a generalist capacity, and extend service provisions in the community. The following extracts from a range of ANPs showed that sophisticated levels of physical assessment are required to work in clinical leadership capacities in order to extend a range of services that were previously unmet. For example ANPs utilised PAS to triage patients in “Rapid Access Clinics” (RAC), run “Sexual Health Clinics”, “Cardiac”, and “ENT and run “Chronic Conditions” clinics within GPs surgeries. Alternatively, these skills were utilised by some ANPs to follow up patients who were housebound in the community.

“Our Advanced Nurse Practitioner (ANP) is a very much a clinical leader in the team and PAS is very much a part of that role” (Nurse Manager Individual Interview 3.)

“I run chronic disease clinics and have a caseload of 400 patients” (Nurse Practitioner Supervisor Individual Interview 4.)

“I do ENT specialist practice [in] the GP surgery”. [They] come and see me rather than the GP” (Nurse Practitioner Focus Group 2. Participant 4.)

“Running cardio clinics” (Nurse Educator) (NE).M1) “run Sexual Health Clinics” (General Practitioner Individual Interview 1.)

The practice context

Negotiating boundaries

This theme highlights the ‘added value’ of higher levels of physical assessment knowledge and skills for ANPs to work flexibly across disciplinary boundaries, particularly with GPs. The main factor that influenced this was the use of the same physical assessment and diagnostic language as GPs. GPs reported that the use of a common assessment language provided

transparency of information between community teams to explain patients' problems. In addition, the use of the same assessment language encouraged equality and minimised interdisciplinary conflict because these two professional groups had an understanding of what the other was doing. This way of working appeared to create conditions for better team working, because the language of PAS was easily contextualised to community care work

"So she was using her PAS and was equally proficient in assessment as I. She has a wealth of information if I need to ask her anything" (General Practitioner Individual Interview 4.)

"There's an understanding that everyone has something to contribute and everyone has different skills sets, [which] is important [for] teamwork" (General Practitioner Individual Interview 4.)

On the other hand, ANP participants challenged the notion that PAS language was easily contextualised to the context of community nursing work. Some ANPs believed that tensions existed in some GP practices regarding the use of PAS language for the purpose of making a diagnosis. In this case study, there were situations when specialist ANPs thought it best to minimise the potential for interdisciplinary conflict by communicating diagnostic findings in a passive manner, by appearing to prompt GPs for an anticipatory diagnosis as opposed to stating a diagnosis. However, these opinions often depended on the ANPs level of experience, confidence and capability in using the language of physical assessment practices

"It's also how you describe the symptoms to the doctor because some doctors absolutely hate it that nurses can actually do this and you'll find if you go in and say, well it's very typical of cellulitis, you're not actually saying it is cellulites, you know it is but if you go in and say, "well actually it's very typical of cellulites" they'll probably accept it more than you going in guns blazing and say, "well he's got raging cellulites, needs antibiotics", blah-blah-blah so if you have to do .. you do it sort of softly-softly" (Community Matron Focus Group 3. Participant 3)

All participants believed that competence, capability and performance in the use of physical assessment practices is a necessity for advanced nursing practice in the community. In particular, GPs believed that higher level of clinical preparedness is necessary for ANPs to be accountable for their clinical decisions, in a similar manner as them

“Need to take responsibility for what they are doing if they can’t make decisions no point in PAS... otherwise they’re shifting responsibility and handing over’ to doctors to make the final decisions” (General Practitioner Individual Interview 1.)

‘Nurses need to know what they are doing and what they are talking about and if they carry out the physical examination in the same way the GP would traditionally have done’ (General Practitioner Individual Interview 4.)

ANPs and nurse educators did not challenge these views, and regarded PAS competence as integral to advanced nursing practice professional preparation. ANPs valued higher levels of assessment knowledge to make independent diagnostic decisions, and regarded accountability as a fundamental principle of advanced nursing practice

“It’s an individual responsibility, it’s your call, your responsibility as a nurse practitioner” (Nurse Practitioner Focus 2. Participant 2.)

“ At some point they listen to the heart sounds and make a decision [that] may well affect the patient outcome [this is linked] to professional responsibility” (Nurse Educator Focus Group 1. Participant 2.)

Time constraints

In contrast, the main constraints that challenged ANPs use of these skills to their fullest capacity, were service factors related to time and volume of work. Whether using these skills to deliver direct clinical care, or to extend service provision, all participants experienced tensions in managing time constraints to undertake person-centred assessment consultations, especially for patients with LTCs. An ANP linked the impact of shorter patient consultations to more frequent recall of patients, and not being able to work within the remit of her professional boundary

“Have 10 minutes appointments and I just can’t do them all [long-term conditions patients] in that time so I have split them into 6 minute appointments into 2 lots. Its a barrier to using the PAS to an extent, because some say “you will just have to come back” but the RCN says 20 minutes appointments” (Nurse Practitioner Supervisor Individual Interview 4.)

GPs participants reported that they had no capacity to undertake in-depth physical examination of frail elderly patients, so this was usually overlooked. The most effective way

to managing time constraints was to delegate these assessment tasks to specialist ANPs because they had more time. Furthermore, GPs believed that PAS education for ANPs provided opportunities to work and deliver services differently. Working in similar ways provided more options for GPs to manage ways patients receive care in their surgeries. Despite the reported benefits of PAS education to support different ways of working, in this case study some ANPs were ambivalent about using these skills confidently and confidently in the long term. The factors will be argued in the following theme

“But you just can't take your 80 year old poorly patient who moves [very slowly] and give them an hour to 'get coat, cardigan [and] undergarments off and then get down to examining, you just can't do it because there's no flex[ability] in the system, because of time, this gets dropped, so community matrons undertake this role” (General Practitioner Individual Interview 1.)

“Nurse practitioners do masses amount of diagnosis because they are managing a multitude of problems and they are diagnosing and managing and they need PAS education for that. They are doing exactly the same as a GP would do in different situations” (General Practitioner Individual Interview 4.)

Education

Barriers to PAS use in practice

The main barriers for ANPs using these skills were system factors related to service demands. Working in time-pressured environments appeared to create conditions for unsupportive learning cultures, and tensions around opportunities to develop PAS competence. Further challenges were deficits in biomedical and specialist knowledge, and basic PAS technical competence not gained in undergraduate nursing professional preparation programmes in the UK. These deficits often made it difficult for ANP to advance their knowledge of PAS in greater depth and comprehensiveness, which is a requirement for advanced nursing practice. For these reasons some ANPs found it difficult to transition PAS knowledge from the University to workplace contexts, to develop overall confidence and capability in the use of these skills in advanced practice roles. However, the general views

of participants in this case study, was that PAS education at the University provided a sound theoretical foundation for physical assessment practices. Although, some ANPs believed that the academic structure to PAS preparation merits consideration. They regarded the course duration as too short with too few academic credits. Other views from an ANP focus group were that health assessment education requires broader range and depth of assessment competencies for advanced nursing practice

“The course does give us the undergraduate building blocks, but I think we are working at a much higher level of nursing practice and it needs to be more involved with a wider range of skills over a longer period of time with more credits at the end. What they give us does not match expect[ations]” (Nurse Practitioner Focus Group 2. Participant 2.)

“It does not encompass specialist skills categories. Also, it does not include any sexual health assessment skills, urology or genito-urinary PAS, so I think that there were big chunks missing” (Nurse Practitioner Focus Group 2. Participant 3)

Other tensions were lack of protected time to learn, and lack of supportive mentorship. Most ANPs in this case study reported that they already working to full capacity, and were unable to delegate work to other colleagues during University time. This meant that they had to arrange learning and supervision time outside own work environments

“There’s a lack of protected time to hone these skills and have to find our own placements, manage our own workloads with colleagues, which is stressful” (Nurse Practitioner Focus Group 2. Participant 5.)

“Students have to negotiate supervision time and create their own learning opportunities” (Nurse Manager Individual Interview Participant 5.)

Although, nurse managers appeared unaware of such constraints and regarded the professional preparation for advanced nursing practice as individualised. They believed that PAS competence can be achieved in a variety of ways, often not maximised to fullest capacity by ANPs

Students have to negotiate supervision time and create their own learning opportunities” (Nurse Manager Individual Interview Participant 5.)

“Team supervision at weekly case meetings and the student can present the patient case’ or negotiate joint visits arranged by the student and GP to provide GP verification” (Nurse Manager Individual Interview 3.)

ANP perceptions differed, and challenged nurse managers’ views on professional role development in practice. In this case study ANPs worked creatively to develop PAS competence outside own work environments

“Negotiating assessment with patients, for a time and place with for PAS assessment” (Nurse Practitioner Individual Interview 3.)

ANPs reported that strategic approaches are necessary to support post-graduate education in the community. They expressed views on the benefits of simulated practice to develop technical competence in a safe environment, prior to using these skills in the context of their work

“Skills or simulation labs in the community, means that I would be able to refresh myself on my own skills. It would be a protected environment and not with a patient where you don’t make mistakes” (Nurse Practitioner Individual Interview 3.)

In the same vein, a GP believed that time taken to develop and rehearse ANPs technical competence in the clinical setting, can detract from using PAS knowledge to its fullest capacity for advanced nursing practice

“PAS competence focuses on the process of signing off of skills [rather than] general competence development of learning how to do the job” (General Practitioner Interview 3)

Discussion

The importance of this study is that it is the first to explore the use of physical assessment practices for ANPs in the community following the Health & Social Care Act (HSCA) (2012). The findings add to the literature about how nursing and general practice view the development of PAS in new nursing roles following the HSCA (2012). GPs recognised the 'added value' of PAS training for ANPs to meet needs of changing patterns of care delivery

from hospitals to the community (DH 2008, DH 2009, and 2012a). The findings in this case study suggest that PAS use brings together clinical expertise, education and liaison skills across discipline groups (DH 2010, RCN 2012). In this sample, PAS prepares nurses in advanced practice roles with sophisticated levels of assessment knowledge and skills that are fit for purpose and practice, to work flexibly to meet changing demands of service. The findings suggest that standardised approaches to PAS education and training may contribute to meeting the UK Government's target for transformational service change (DH 2012, Higher Education England (HEE) 2014).

The findings of this study also provide insight into how nurses in advanced practice roles blend PAS knowledge to a model of care that promotes person-centred practices (McCormack & McCance 2010). This was particularly evident in the manner in which ANPs individualised physical examination consultation for patients with LTCs. Tangible examples within the data identified the 'added value' of bio-medical knowledge during the consultation, to build on patients' own capabilities to care for themselves. This was achieved by providing clear and understandable explanations of physical symptoms, and working inclusively with the patient and carers through discussion and answering concerns. Motivating such patients to care for themselves required empathetic understanding, and time to build good nurse-patient relationships.

Importantly, the findings identified several organisational and environmental factors that prevented ANPs from using physical assessment practices in person-centred ways. Shorter consultation times, heavy workloads and complexity of patients' illnesses, prevented both disciplines working pro-actively with patients with LTCs, to involve them in self-care decisions. In these situations patient assessment findings were used to fix problems. Longer consultations were difficult to justify in terms of time, yet views were that time was the main factor which underpinned self-care initiatives for such patient groups.

It is clear that, in this case study, tensions existed around adequate resources to provide patient-centred assessment standards in time-pressured environments. Conflicting organisational and strategic work-force initiatives' are identified in the literature as barriers to achieving consistent standards of care (Manley *et al.* 2011). Common findings were system factors related to efficiency and effectiveness benchmarks, often leading to pressurised work cultures (McCormack & McCance 2010 & van Dam 2013).

The study's findings also suggest why PAS were necessary for ANPs to meet the demands of the changing contextual features of primary care work (The Kings Fund 2011, Ham *et al.* 2012). Service demands placed emphasis on ANPs using PAS to work in clinical leadership capacities to influence patient outcomes (DH 2010, RCN 2012). This was evident in how specialist ANPs used these skills in a generalist capacity at systems level to improve the care quality for defined patient groups. Alternatively, ANPs used the skills in context-sensitive ways to meet patients, stakeholder and team needs to improve the quality of service provision, by offering services that were different to that provided by GPs. This would suggest that the use of PAS in the community by ANPs in this case study aligned with the leadership domains of advanced nursing practice (National Leadership and Innovation Agency (NLIA) 2010, DH 2010, RCN 2012) that was reflected in organisational achievements (Begley *et al.* 2010, NLIA 2010). It is for these reasons that ANPs in this case study required levels of PAS competence to that of GPs.

To achieve PAS competence required supportive organisational work cultures, and opportunities for professional networking. In this study, competence, performance and capability of physical assessment practices was often individualised and relied on personal commitment and motivation of the practitioner. The majority of ANPs engaged in deliberate learning strategies by organising skills rehearsal outside work environments to 'test bench' (Evans *et al.* 2010, p.245) theoretical principles, prior to contextualising PAS to work environments. An important contribution to the development of ANPs competence, capability and performance was the direct influence of supportive and experienced clinicians with a

wider repertoire of clinical coaching and mentoring skills. They viewed expert mentoring as playing an important role in developing their critical thinking and diagnostic reasoning skills, in line with the expectations of advanced nursing practice (DH 2010), and overall strategic plans to support healthcare reforms in the future (WHO 2005). Additionally, ANPs in this case study required an educational framework that is core for advanced practice roles, to include advanced health assessment and diagnostics, prescriptive authority and knowledge of evidenced based management plans (RCN 2012).

Limitations

This was a qualitative case study in one geographic area in England. These findings contribute to the profession's knowledge base about individual and local system experiences of new nursing roles in community care and transformative change. Unfortunately patient views were not explored and this requires a further study. The findings are possibly biased because they include participants' accounts and self-report from ANPs who use PAS in the community. However the findings also represent GPs' views which expand our understanding of advanced roles and how medicine views such roles. This study acknowledges the limitation of being based in community and not in hospital environments.

Conclusion

In this case study, stakeholders have reported that ANPs' use of PAS in the community benefitted patients and services. ANPs used PAS to work flexibly across professional boundaries in the community, to meet patient and service needs that were unmet by GPs. For these reasons' ANPs required a depth of knowledge of physical assessment practices to work in similar ways to GPs. Therefore it would be preferable to suggest, that elements of PAS education to be integrated into undergraduate professional preparation programmes in the UK. This would provide a platform to develop PAS competence in greater depth for advanced practice roles. Given the tensions surrounding the development of PAS capabilities in work-pressured environments, Universities may need to consider ways to

develop PAS competencies for ANPs to be 'practice ready' prior to using these skills in the workplace.

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